

SCIENTIFIC WARFARE.

Important Part Played by Electricity in Eastern Hostilities.

The General Adoption of Telegraphic Communication by the Mikado's People—Japanese Are Adepts in the Art.

It is interesting to note the important part played by electrical appliances in the war between China and Japan. The Japanese especially are quick to turn to account any advantage offered by scientific appliances, and in Corea they have materially strengthened their hands by taking possession of the lines and stations of the telegraph service. Their men are trained in construction as well as in actual manipulation, says the Chicago Tribune, and can be trusted to keep the lines in working order as long as they retain control.

The mikado's people have taken very kindly to the telegraph since its introduction in 1870. Their first installation of a couple of short lines, about forty miles long altogether, speedily grew into four thousand miles, and now the wires devoted to the service measure close on twenty-six thousand miles, including several submarine cables of various lengths, one of the longest being that connecting Nipon (the main island) with Tsu-shima, the largest island midway between Japan and Corea, a position which, as may be readily imagined, is just now of the utmost strategical importance.

So well, indeed, have these clever copyists appropriated and utilized the telegraphic developments of western civilization that there is now hardly a point on the coast more than a few hours distant from a telegraph office, so that a fleet runner could convey the news of a hostile descent to the adjacent outpost, and a defensive force be called to the threatened region in less time than it would take the Chinamen to determine upon their point of attack.

This was demonstrated very clearly in 1876, when the news of the Satsuma rebellion was brought by a boatman to Kumamoto in one night, and flashed to the capital almost before the insurgents' rear guard had cleared from Kagoshima. The consequence was that the rebel Gen. Saigo was promptly met and snuffed out before he had reached the territory in which his forces might have become dangerous through being augmented by numerous sympathizers. But for the telegraph there would doubtless have been serious trouble, for it would have taken a fortnight for a runner to reach the capital, and the delay would have been all in favor of Saigo.

In the matter of field telegraphy, too, the Japanese are adepts, their portable instruments, etc., being modeled upon apparatus which they have imported from Europe. The posts are made in sections with spiked bases to stick in the soil and the wire runs out from each on light hand barrows. The Japanese are entirely undisturbed by

any considerations as to patent infringement. When the first telephone receiver reached Japan from America it was received with delight and enthusiasm, and within a week or so there were some Edison receivers of native make being experimented upon. The police and fire brigade systems of telephonic alarms and calls now established in Japan are complete in every detail. Many of the Japanese vessels are furnished with the electric light, and it is stated that the manipulation of the projectors is remarkably efficient.

Notice has been given that owing to the outbreak of the war lights on the Formosa coast have been extinguished, and no doubt others, both in Japan and China, will also be put out or false lights substituted to suit the purpose of either. It will therefore be necessary for all steamers navigating those waters to be extremely careful, and a correspondent of a London daily suggests that one of the best precautions is to use the "submarine sentry," as by its aid a vessel going at ten knots can be assured that it has at least twenty fathoms of water under its keel, and warning is given on board if less depth is reached, thus giving ample time for position to be verified. The "submarine sentry" is a recently invented electrical arrangement for giving the warning mentioned.

An Open South Pole.

It is evident that some climatic conditions have existed in the neighborhood of the Antarctic pole for the last few years which have caused masses of ice to appear in frequented waters by the side of which our usual northern icebergs are as molehills to mountains. These, says the United Service, have been so reported by masters of vessels making passages in the extreme south that there can be no mistake about it, even allowing for imagination and exaggeration. No doubt many a ship reported "missing" found her fate upon or among these ice masses. Such being the case, it stands to reason that the present would be a favorable time for exploration towards the south pole, and efforts have been made for some time to have the English government undertake such a mission, and endeavor to discover whether a great antarctic continent, with its lofty volcanic mountain ranges, does really exist, and, incidentally, what new hunting-grounds for seals and cetaceans are to be found.

Wealth of the Mormons.

The greatest wealth, either of the Mormon church, or of the individuals at its head, has been again demonstrated by the recent investment of ten million dollars by the "first presidency" in a new corporation called the Utah company. This new company is to operate coal mines, a railroad, a bathing beach and pleasure resort at the Great Salt lake and build, equip and operate telegraph lines. This is purely a church scheme in which Gentiles have no part, and is, like the Zion Cooperative company, to be managed to add to the wealth of the church.

WILDEST TRIBE OF INDIANS.

The Papagoes, of Arizona, Are Great Wanderers, But Not Bloodthirsty.

The chief of the bureau of ethnology in Washington has sent two scouts into Arizona to look over the homes of the Papago Indians and to investigate their race characteristics, says the New York World. They are the most vagrant of American Indians, with many tribal peculiarities. They live in southern Arizona. Often they make foraging expeditions into Mexico, and in the sense of settled habitation they cannot be said to live anywhere. They are the most nomadic of all the Indian tribes at present. The Papagoes were once a tribe of from four to seven thousand. The exact number is not known. They are scattered over so wide a range of territory that it is doubtful if even one of their own number could form a clear idea of how many there now are in the tribe.

The Papagoes are wild in the sense that they are not civilized, but not in the sense that they are bloodthirsty. They are a very peaceful people, and many of them assist their Indian neighbors in harvesting their grain. They take their pay in supplies, which they lay up for the winter season. But in the summer they live chiefly on the fruit of the cactus plant and wild berries. It is a wonder how they live at all. Some of those who lead a roving life own a few horses and cattle. But the entire number of cattle owned by those who are not on reservation is only two thousand and the number of domestic fowls is one thousand.

The Papago Indians receive no rations from the government. They are actually self-supporting, asking nothing of the government and receiving very little. There are from three hundred to five hundred Indians gathered on two reservations, one near Tucson and one near Gila Bend, on the Southern Pacific railroad. These communities are not models of their kind. In fact, they are described as having each about thirty miserable, squalid adobe houses, with not a drop of water within many miles, except what is caught in pools during the uncertain Arizona rainy season, and in a short time this water becomes thick and vile, because the pools are the common resort of the Indians, the cattle and the swine. What the Papagoes need most is irrigation to make their barren land fertile, for that land now will not furnish subsistence for a coyote or a gopher.

WHERE PRINCES ARE PLENTIFUL

Hundreds of Them Employed at Menial Work in Russia.

Fair Americans who contemplate the purchase of a Russian title—and a husband—should remember that the title of prince has little meaning in Russia proper, although its bearers often impose upon ignorant people outside of the dominions of the white czar. There are said to be six hundred men bearing the famous name Prince Galitzin—a scion of which family is Father Galitzin, who died in Pennsylvania—a patronymic almost as well and favorably known as Romanoff. Many princes,